Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of)
)
Facilitating the Deployment of) PS Docket No. 11-153
Text-to-911 and Other Next Generation)
911 Applications)
)
Framework for Next Generation) PS Docket No. 10-255
911 Deployment)

Comments on Text-to-911 Services

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Background

AGENT511 currently delivers a hosted, geospatially routed SMS/MMS platform to public safety agencies. Text calls are initiated either on the mobile phone or by the telecommunicator (TC). The platform is deployed either standalone using a web portal chat manager, integrated with popular CPE software platforms (via open, published application programming interface, API), or delivered via session initiation protocol (SIP).

The company wishes to comment on the aforementioned proceedings as well as share its experience in delivering text messaging solutions to both the hearing and deaf, hard of hearing, and speech impaired (DHHSI) communities.

Deployment scenarios

Registration process

Mobile phone user registration is optional, however, it serves the purpose of qualifying the user for the text service as well as delivering the requisite education. As an example, users may be required to reside or work in the community delivering the service and/or may have a disability necessitating use of the service.

Geospatially routed

The mobile phone user sends an SMS message to the destination address and upon receipt, the handset location is acquired and the applicable jurisdiction is determined. The system alerts the agency, through various channels, that an SMS requires handling. The SMS call may be accessed on a web portal as shown in Figure 1. Calls may be transferred to adjacent TC's as well as agencies. In the event the agency does not support SMS text messaging (e.g. lack of IP connectivity), the transferor may relay the call.
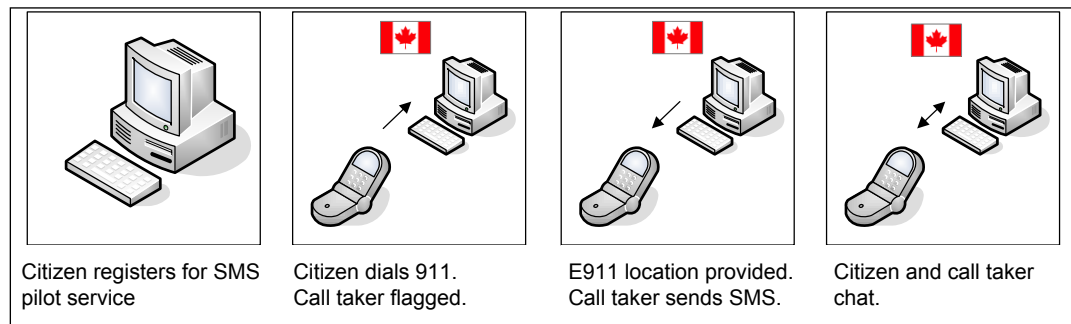
Figure 1: TC SMS chat window

Dial 9-1-1 and text
Currently, the AGENT511 application supports Canada's T9-1-1 SMS pilot service. An SMS call is initiated as a result of a 9-1-1 voice call from a registered mobile phone user. Upon receipt of the voice call, the telecommunicator is flagged and the SMS call is concurrently initiated using an SMS long code.

Figure 2: T9-1-1 SMS "call then SMS"

| Citizen registers for SMS pilot service | Citizen dials 911. Call taker flagged. | E911 location provided. Call taker sends SMS. | Citizen and call taker chat. |

Comments

Sessions
While SMS messages are not delivered as part of a sequenced conversion, they can be combined into a single, routable call between the mobile phone user and TC. Although SMS messages are not sequenced, we rarely observe out-of-order messages. Upon completion of the call, the TC invokes an "end" feature, which notifies the user and "tears down" the call.

Reliability of messaging
While SMS messaging is considered best effort, in our experience, SMS text messages are delivered both expeditiously and reliably. Typical delivery times range from 5-30 seconds. Carriers do infrequently experience high latency periods. As part of mobile phone user education, users must understand the limitations and expectations; namely, a user should expect a confirmation reply to his/her initiating an SMS message.

Delivery receipt
Despite some preconceptions, most major and superregional mobile carriers confirm short code SMS mobile terminated (MT) delivered to the handset. Mobile originated (MO) SMS delivery receipt (to the mobile phone user) is not currently available; as such, citizens are instructed to expect an immediate reply to his/her initiating SMS message.

Multimedia

Short code MMS is currently supported on the major US carriers and allows mobile phone users to share text and pictures. In order to correlate MO multimedia with a specific incident, it is recommended that the media be solicited as a result of a 9-1-1 voice or SMS call.

Usage models

Many of the prominent text programs deployed (by the various entities) to date have not yielded profound volumes. We believe that this is a result of the following:

- Limited citizen education;
- Perception that trial programs may not be "live;"
- Lack of cross-carrier support; and
- Program is targeted to a specific community only.

Our experience with all messaging campaigns—both commercial and public sector—indicates that mobile phone user education, and consequently usage, takes time.

Cost models

The platform is delivered affordably and is scaled to meet an agency's messaging requirements. Because it is remotely hosted and web-based, the installation costs for many agencies is nominal. Recurring fees include hosting and incremental messaging and location usage.

While many view SMS messaging an interim solution, we believe that accepting SMS messages provides the impetus, sooner than later, for public safety agencies to upgrade systems to accept next-generation multimedia communications. That being said, it can be deployed today, especially for the disabled using a hybrid approach that combines direct web, API integration, and SIP messaging, and as required so as to fill the gap, indirect relay centers.

AGENT511expresses its willingness to further discuss its experience with the Commission.

Sincerely,

/s/ *Jay I. Malin*

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